

WE CLAIM AS OUR INVENTION 17
Patent claims.

1. Switching equipment (1) for a communication network, whereby the switching
equipment (1) is connected via at least one connecting path (9 - 15) to at least one
5 other adjacent switching equipment (2, 3) of the communication network, and
whereby the connecting paths (9, 15) connected to the switching equipment (1) are
divided into first (9 - 11) and second (12 - 15) connecting paths, whereby, when a
connection request is present, the switching equipment (1) is only authorized for the
first connecting paths (9 - 11) for allocating a transmission channel for this connection
10 request, whereas the adjacent switching equipment (2, 3) that is connected to the first
switching equipment (1) via the corresponding second connecting path is authorized
for allocating a corresponding transmission channel for the second connecting paths
(12 - 15),
with first storing means (4) for purposes of storing bits of information about the free or
15 occupied resources of the first connecting paths (9 - 11), and
with control means (6) in order to, on the basis of the bits of information stored in the
first storing means (4), detect a suitable first connecting path (9 - 11), which provides
sufficient resources for the desired connection, when a connection request is present,
characterized in that
20 second storing means (16) are present for purposes of storing bits of information about
the free or occupied resources of the second connecting paths (12 - 15), and
that the control means (6) are fashioned such that they select an adjacent switching
equipment (2, 3) on the basis of the bits of information stored in the second storing
means (16) when a suitable first connecting path (9 - 11) could not be detected on the
25 basis of the bits of information stored in the first storing means (4) given presence of a
connection request, which switching equipment (2, 3) is connected to the switching
equipment (1) via a second connecting path (12 - 15), which probably provides
sufficient resources for the desired connection, and such that they transmit an inquiry
message to the selected adjacent switching equipment (2, 3) for purposes of allocating
30 a transmission channel for the desired connection.

2. Switching equipment according to claim 1,
characterized in that,
the control means (6) are fashioned such that they, subsequent to the detection of a
suitable first connecting path (9 - 11), transmit bits of information about the allocated
5 transmission channel for the desired connection and bits of information about the
detected connecting path (9- 11) to the adjacent switching equipment (2, 3), which is
connected to the first switching equipment (1) via the detected first connecting path (9
- 11).
- 10 3. Switching equipment according to claim 2,
characterized in that
the control means (6) are fashioned such that they, when a first connecting path (9- 11)
with resources that are sufficient for the connection request could not be detected,
transmit the inquiry message for allocating a transmission channel for the desired
15 connection to the adjacent switching equipment (2, 3) in the form of a forward
message without bits of information about the connecting path or the transmission
channel.
- 20 4. Switching equipment according to one of the previous claims,
characterized in that
the control means (6) are fashioned such that they, subsequent to the inquiry message
to the adjacent switching equipments (2, 3) selected by the control means (6) and
subsequent to the allocation of a transmission channel by means of the adjacent
switching equipment (2, 3), renew the bits of information, which are stored in the
25 second storing means (6), on the basis of a confirmation message of the adjacent
switching equipment (2, 3), whereby the confirmation message comprise bits of
information about the transmission channel allocated by the adjacent switching
equipment (2, 3), about the resources occupied for the desired connection and about
the second connecting path (12 - 15) selected by means of the adjacent switching
30 equipment (2, 3).

5. Switching equipment according to one of the previous claims,
characterized in that
the communication between the switching equipment (1) and the adjacent further
switching equipments (2, 3) of the communication network ensues via B-ISUP
5 signalization messages.

6. Switching equipment according to one of the previous claims,
characterized in that
third storing means (5) are provided for purposes of storing configuration data of the
10 switching equipment (1), whereby the configuration data prescribe, regarding the
switching equipment (1), which of the connecting paths connected to the switching
equipment (1) are first connecting paths (9 - 11), for which the switching equipment
(1) is authorized for allocating a transmission channel when a connection request is
present, and which of the connecting paths are second connecting paths (12 - 15), for
15 which the switching equipment (1) is not authorized, but for which a correspondingly
adjacent switching equipment (2, 3) is authorized for allocating a transmission channel
for the connection request.

7. Switching equipment according to claim 6,
20 characterized in that
the configuration data stored in the third storing means (5) prescribe to which adjacent
switching equipment (2, 3) the switching equipment (1) is to detect a connecting path
when a connection request is present.

25 8. Utilization of a switching equipment according to one of the previous claims in an
ATM broadband communication network.

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